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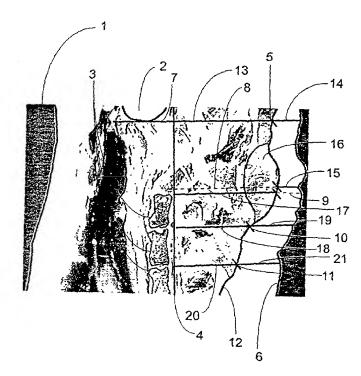
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(54) Title: METHOD FOR ASSESSING THE QUALITY OF ANIMAL HALF-CARCASSES

(54) Bezeichnung: VERFAHREN ZUR BEURTEILUNG DER QUALITAT VON SCHLACHTTIERHALFTEN

(57) Abstract: The invention relates to a method which, using optical image processing, ensures an automatic quality assessment of animal half-carcasses, in particular, of slaughtered pigs, whereby, compared to prior art methods, a higher reproducible estimation accuracy, which can not be significantly influenced by errors made during the cleaving process of the slaughtered animal, is attained by carrying out image acquisition in a manner that is not absolutely perpendicular in relation to the cleaving plane. To this end, the invention provides that an optical recorded image of the animal half-carcass is photogrammetrically evaluated in the cleaving plane, in the area of the ham-loin region. The vertebral column (3), the hinge bone (2), the thinnest fat thickness on the musculus gluteus medium (MGM) (16), and the contours of the fat back (6; 12) in the selected region are used as distinctive reference points. The portion of lean meat which leads to the assessment of quality is calculated by adding the partial lengths in the region of the meat and of the fat layer which are set in proportion to one another and which are perpendicular to the straight progression of the back marrow channel while taking into account a base constant as well as constants for each term, which are established from regression calculations.

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Abstract

The invention describes a method which by means of optical image processing ensures the automatic evaluation of the quality of slaughtered animal halves, in particular of slaughtered pigs, wherein in contrast to the known methods, it is possible to achieve a higher reproducible accuracy of estimation which can only be influenced insignificantly by errors in the process of splitting the slaughtered animal and cannot be influenced by not absolutely perpendicular image recording with respect to the splitting plane. In accordance with the invention, the object is achieved by virtue of the fact that a recorded optical image of the slaughtered animal half in the splitting plane, in the region of the ham-loin region is evaluated photogrammetrically.

The significant reference points which are used are the spinal column (3), the pin bone (2), the thinnest layer of fat on the MGM (16) and the contours of the back fat (6; 12) in the selected region.

The lean flesh proportion which is crucial for the purpose of evaluating quality is calculated by the addition of partial sections, which are set in ratio with respect to each other and are perpendicular to the straight progression of the spinal cord channel, in the region of the flesh and the layer of fat, thus incorporating constants for each term, which are ascertained from regression calculations, and a basic constant.

(Figure 1)